

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/045124 A1

(51) International Patent Classification⁷: **D06P 1/22**, 1/24,
C09B 7/00, 9/02, D06P 3/60

HILDEBRAND, Rainer [DE/DE]; Tüllinger Strasse 60,
79539 Lörrach (DE).

(21) International Application Number:
PCT/EP2004/052740

(74) Common Representative: **CIBA SPECIALTY CHEMICALS HOLDING INC.**; Patent Department, Klybeckstrasse 141, CH-4057 Basel (CH).

(22) International Filing Date:
1 November 2004 (01.11.2004)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03104133.8 10 November 2003 (10.11.2003) EP

(71) Applicant (*for all designated States except US*): **CIBA SPECIALTY CHEMICALS HOLDING INC.** [CH/CH]; Klybeckstrasse 141, CH-4057 Basel (CH).

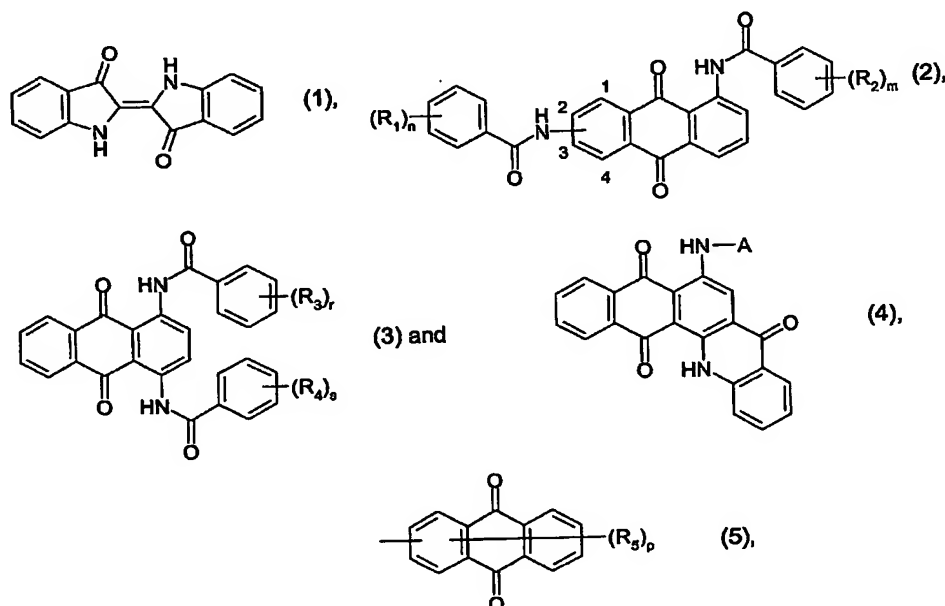
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **SCHEIBLI, Peter** [CH/CH]; Neuhofweg 29, CH-4102 Binningen (CH).

[Continued on next page]

(54) Title: PROCESS FOR DYEING CELLULOSIC FIBRE MATERIALS WITH AT LEAST TWO VAT DYES



(57) Abstract: A process for dyeing cellulosic fibre materials, wherein the fibre material is brought into contact with at least two dyes from the group of formulae (1), (2), (3) and (4) wherein A is hydrogen or a radical of formula (5), R₁, R₂, R₃ and R₄ are each independently of the other halogen, C₁-C₄alkyl, C₁-C₄alkoxy, nitro, benzoylamino which is unsubstituted or substituted in the phenyl ring, or unsubstituted or substituted amino, n, m, r and s are each independently of the others the number 0, 1, or 2, and p is the number 0, 1, 2, 3 or 4, produces level, tinctorially strong dyeings.



SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— with international search report